



**Town of Grafton  
Planning Board  
November 24, 2014**

**Traffic Impact and Access Study**

**Proposed Bull Meadow  
Residential Development**

**Appaloosa Drive  
Grafton, Massachusetts**

**FILE**

*Presented at the 11/24/14 Planning Board Meeting*

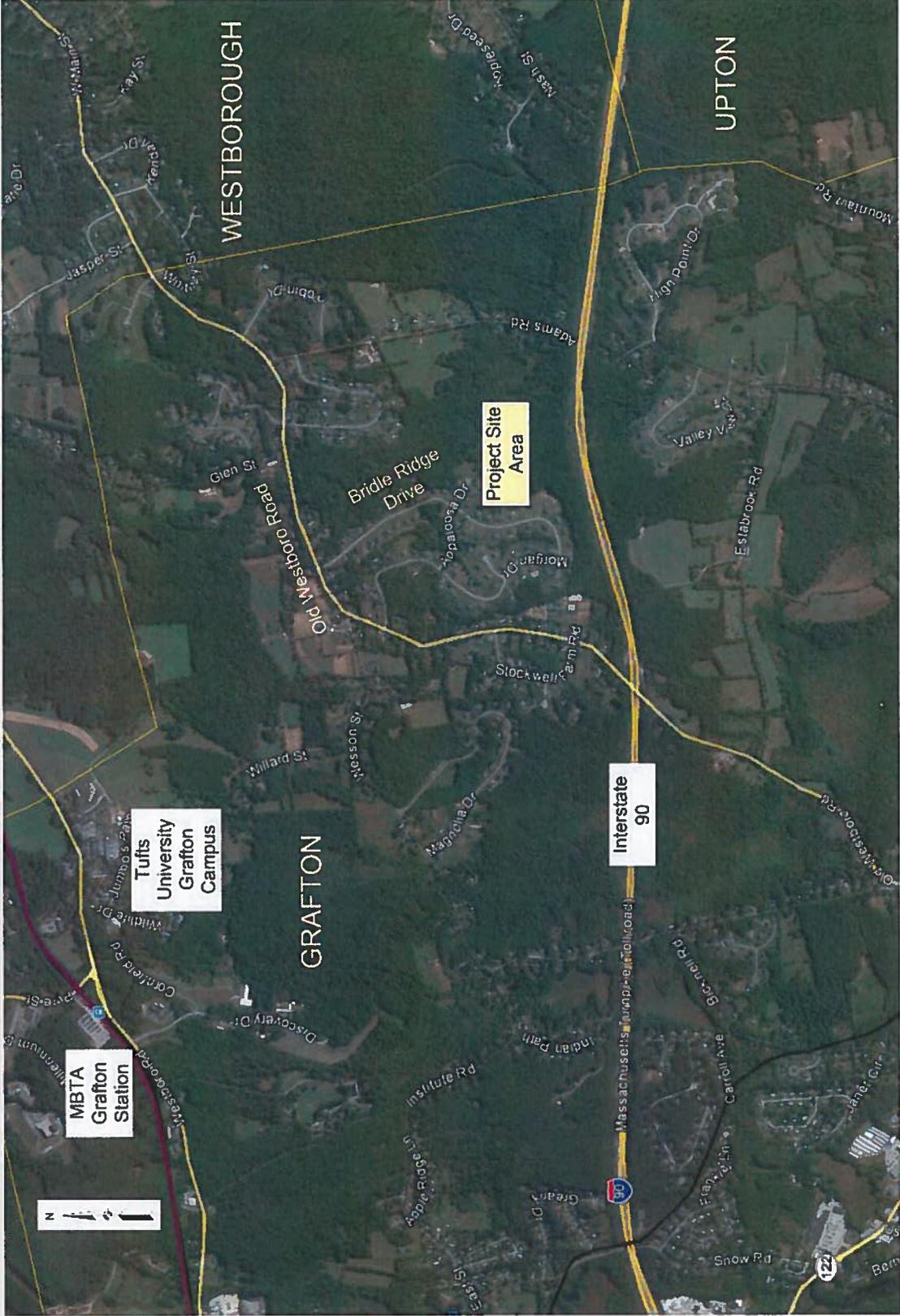


## Traffic Impact and Access Study Outline

- **Review Existing Conditions**
  - **Roadways/Intersections**
  - **Traffic Volumes**
  - **Crash History**
- **Future No-Build Conditions**
- **Future Build Conditions**
  - **Sight Distance**
  - **Site-Generated Traffic**
  - **Intersection Capacity Analysis**

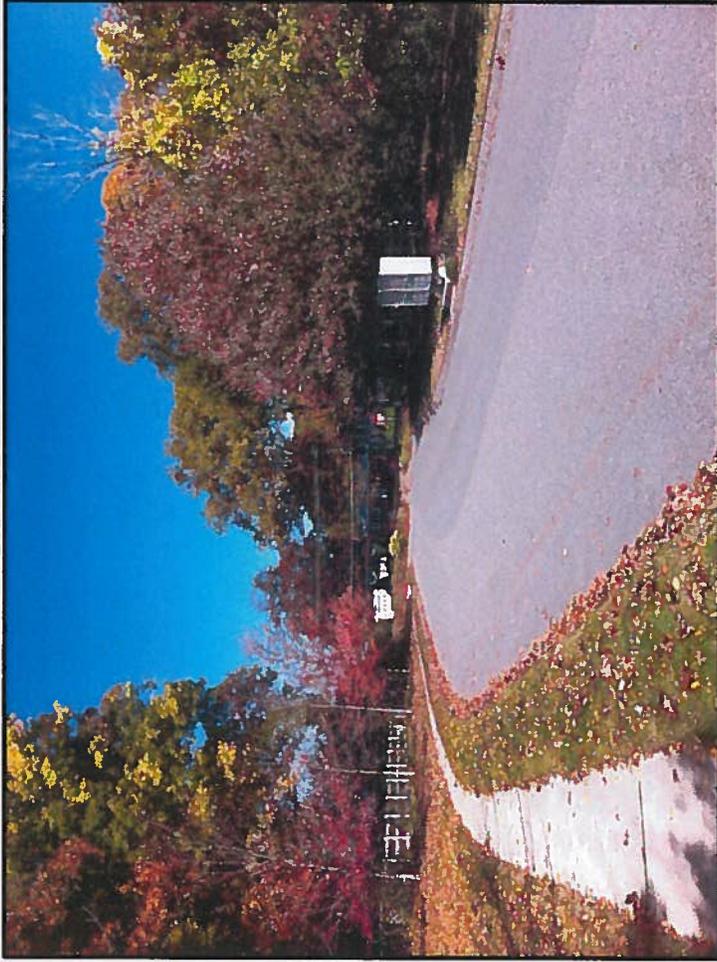


# Project Area



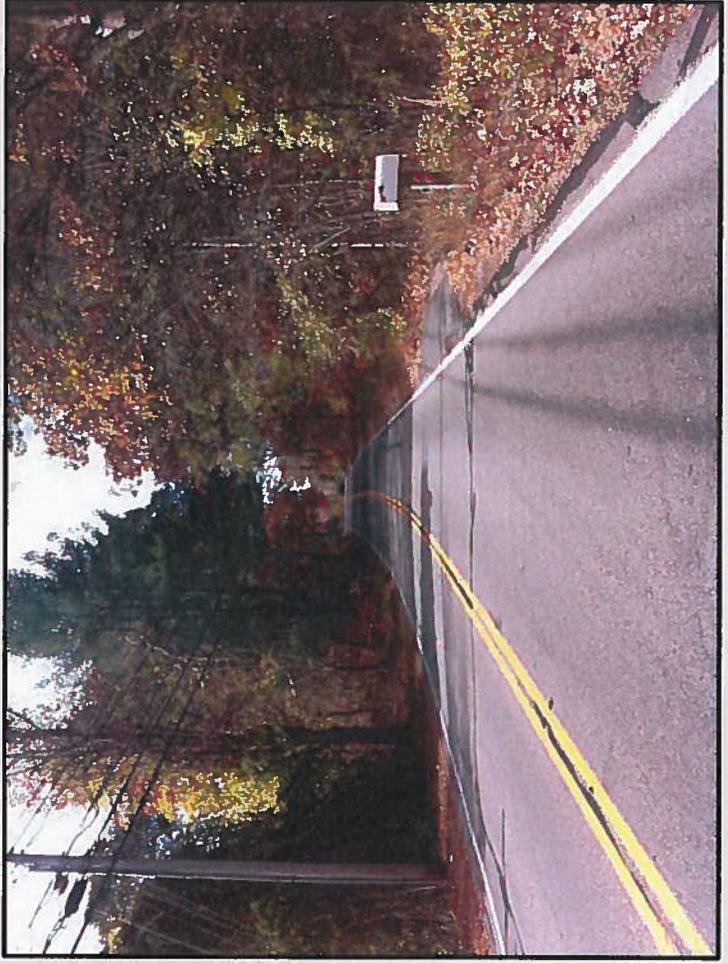


## Existing Roadways



**Bridle Ridge Drive**

**Old Westboro Road**





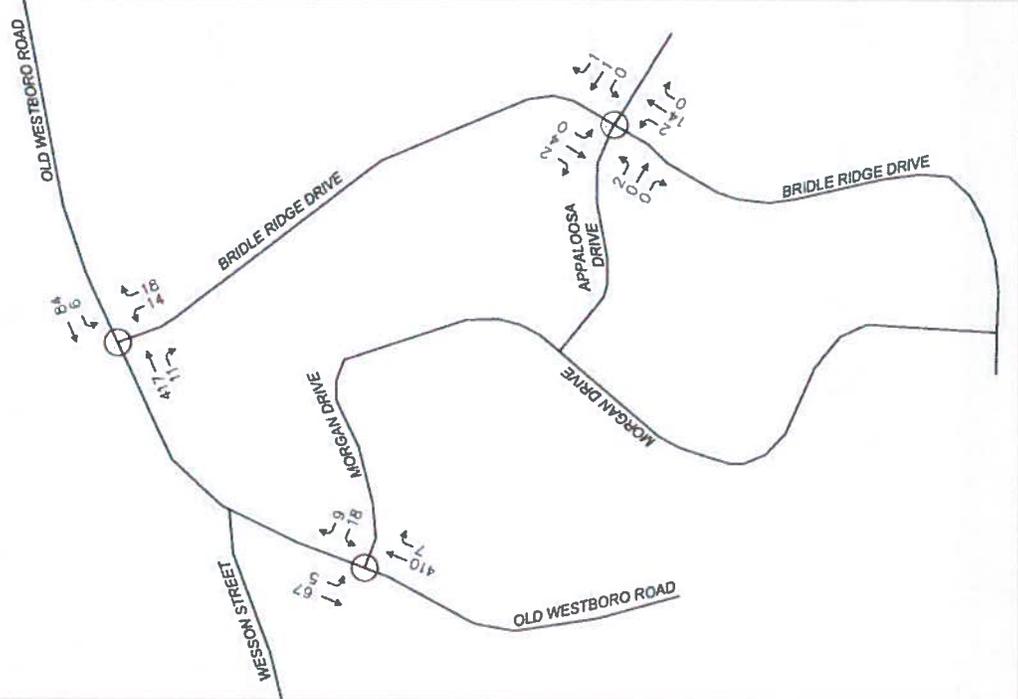
## Existing Traffic Volumes

Location	ADT	AM Peak Hour		PM Peak Hour	
		Volume	Percent of Daily	Volume	Percent of Daily
Old Westboro Road, east of Bridle Ridge Drive	4,430	536	12.1%	529	11.9%
Bridge Ridge Drive, north of Appaloosa Drive	230	28	12.2%	29	12.6%

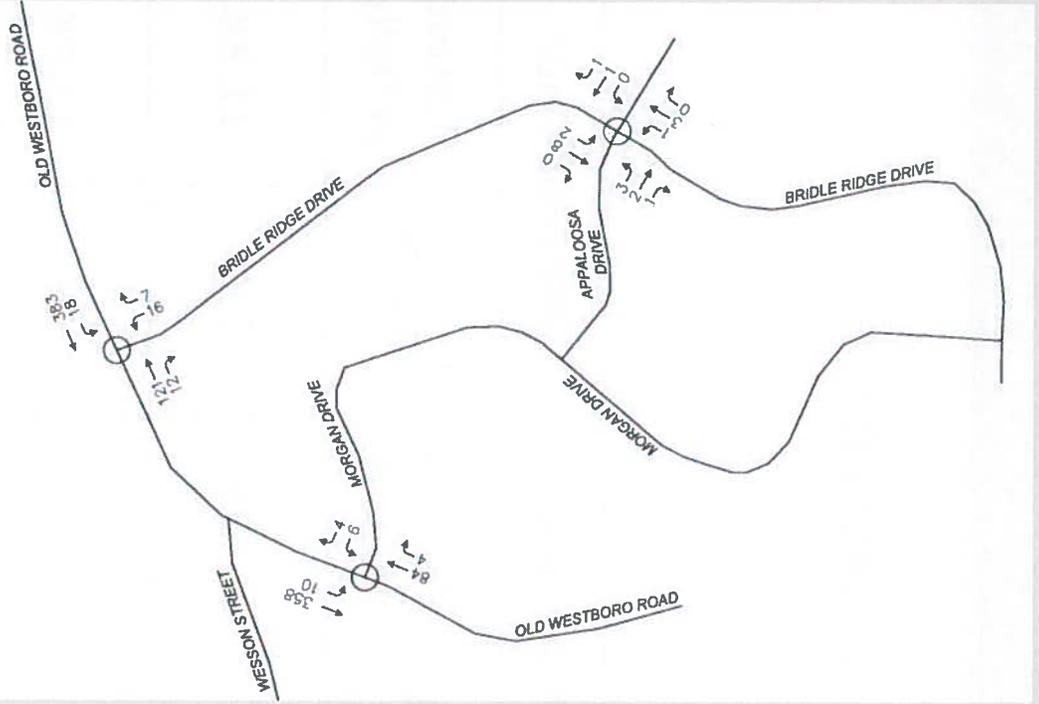


# Existing Traffic Volumes

## AM Peak Hour



## PM Peak Hour





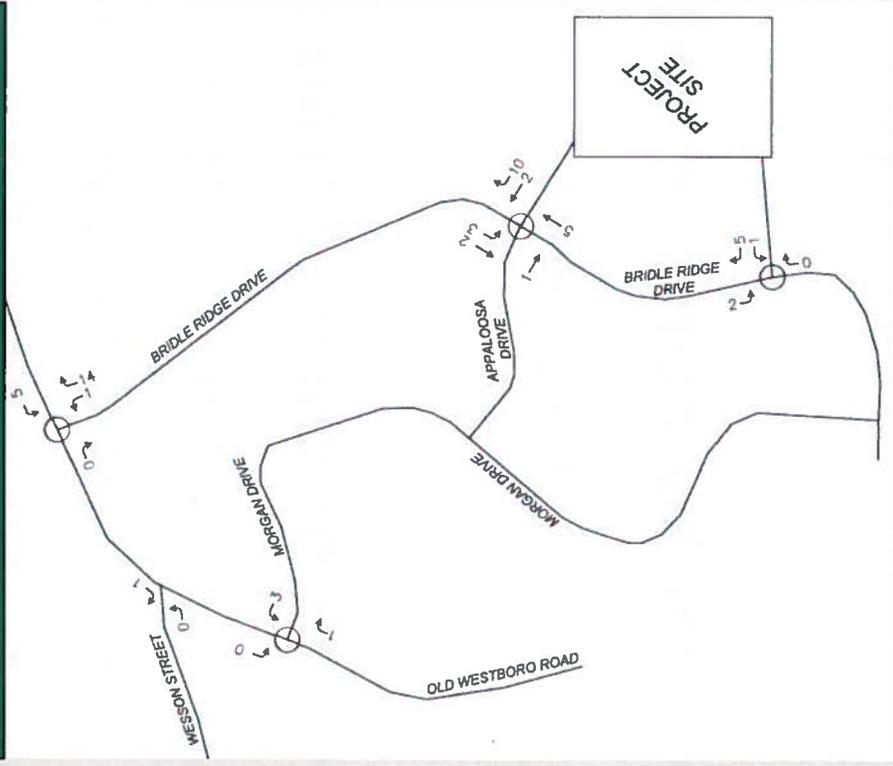
## Future No-Build Conditions

- **Background growth rate**
  - 1% per year for 7 years
- **Other Development Projects**
  - Grafton Hills (45 residential units)
  - Grist Mill Village (11 residential units)
  - Cumberland Farms (Millbury)
  - 25 West Main Street (24 residential units, Westborough)
  - Westborough Village (276 residential units, Westborough)
  - Tufts Grafton Campus Expansion



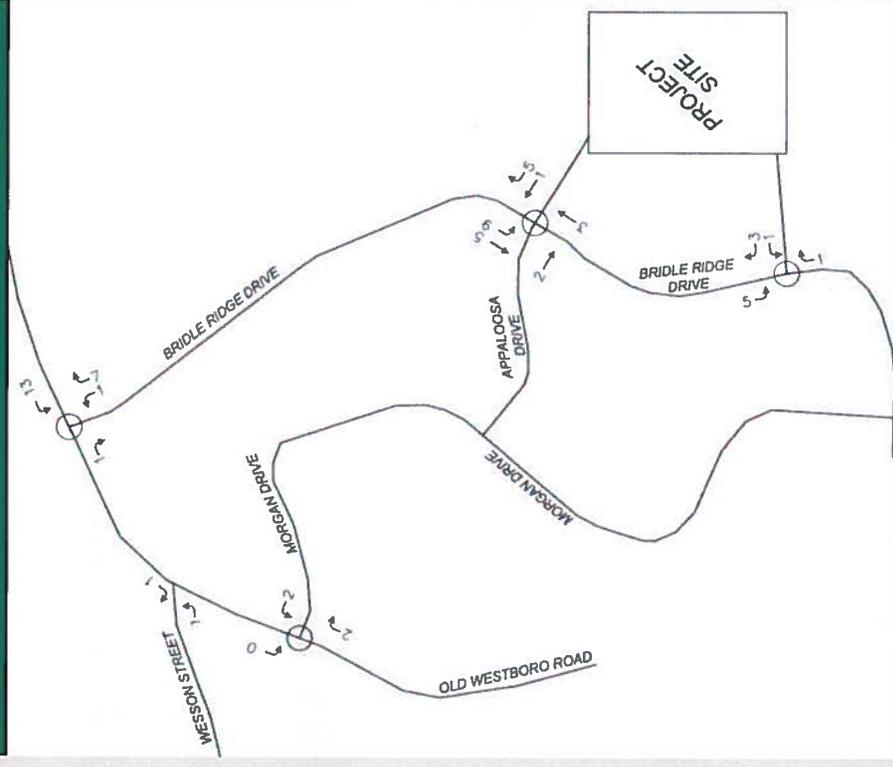
# Site-Generated Traffic

## AM Peak Hour



- 6 Entering Trips
- 18 Exiting Trips
- 24 Total Trips

## PM Peak Hour



- 16 Entering Trips
- 10 Exiting Trips
- 26 Total Trips



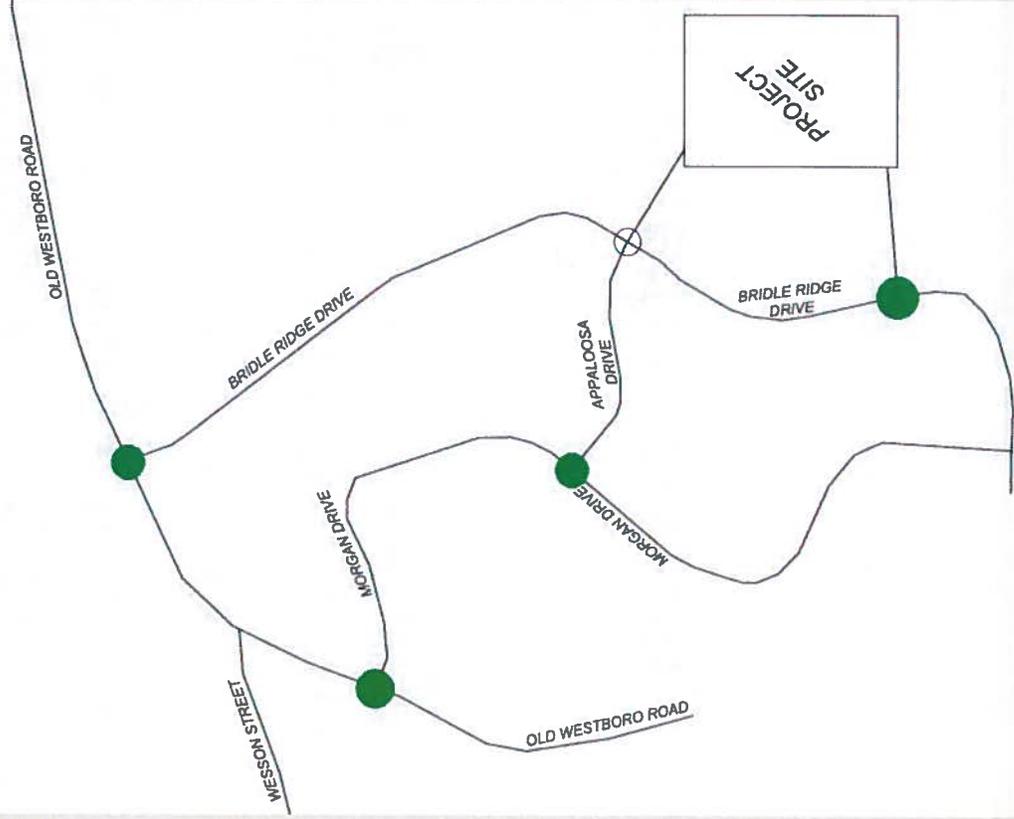
## Intersection Capacity Analysis

- **Highway Capacity Manual Methodology**
- **Compared Existing, Future No-Build, and Future Build scenarios**
  - **All study intersections currently operate at LOS A/B**
  - **Project traffic is expected to add <1 second of additional delay at any study intersection**
  - **No perceptible change in vehicle operations**



# Sight Distance

## Locations



- **Stopping Sight Distance (SSD)**
  - **Minimum Required Distance exceeded at all locations**
- **Intersection Sight Distance (ISD)**
  - **Desirable distances not met at Old Westboro Rd intersections**
  - **Existing Condition**
  - **Can be improved by clearing vegetation and greater enforcement of speed limits**



## Conclusion & Recommendations

- **Negligible impacts to traffic operations**
- **Min. Sight Distances for safety are exceeded**
- **The existing roadway network can accommodate the proposed project**

